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MP8004

13W 802.3af PoE Powered Device Interface with Flyback DC-DC Converter

DESCRIPTION

The MP8004 is an integrated IEEE 802.3af PoE compliant Powered Device (PD) power supply solution. It includes a PD interface and an isolated/non-isolated flyback converter.

The PD interface includes detection and classification modes as well as a 100V output pass device. Inrush current limit is included to slowly charge the input capacitor without interruption due to die heating.

The DC-DC converter includes a 150V power switch and is capable of delivering 13W PoE power with high efficiency. It has an internal soft-start, auto-retry, and incorporates over current, short circuit, and over voltage protection. It can also skip cycles to maintain zero load regulation.

The MP8004 can support a front-end solution for PoE-PD application with minimum external components, and is available in thermally enhanced 4x6mm QFN20 package.

FEATURES

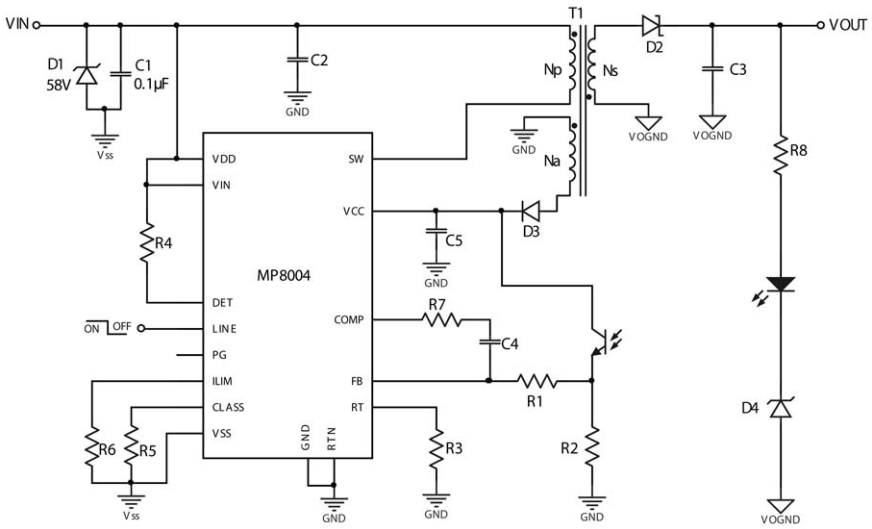
- Meets IEEE 802.3af Specifications
- 100V, 1Ω Integrated Pass Switch
- 420mA DC Input Current Limit
- 150V, 0.45Ω Integrated Switch for Power Converter
- Cycle-by-Cycle Switching Current Limit
- Integrated 100V Startup Circuit
- Programmable Switching Frequency
- Duty Cycle Limiting with Line Feed Forward
- Internal Slope Compensation
- OCP, SCP and OTP Protection
- 4x6mm QFN20 Package

APPLICATIONS

- VoIP Telephones
- Security Camera Systems
- Wireless Access Points/Wireless LAN
- Small-cell Base Stations
- Safety Backup Power
- Remote Internet Power

All MPS parts are lead-free and adhere to the RoHS directive. For MPS green status, please visit MPS website under Products, Quality Assurance page. "MPS" and "The Future of Analog IC Technology" are registered trademarks of Monolithic Power Systems, Inc.

TYPICAL APPLICATION



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